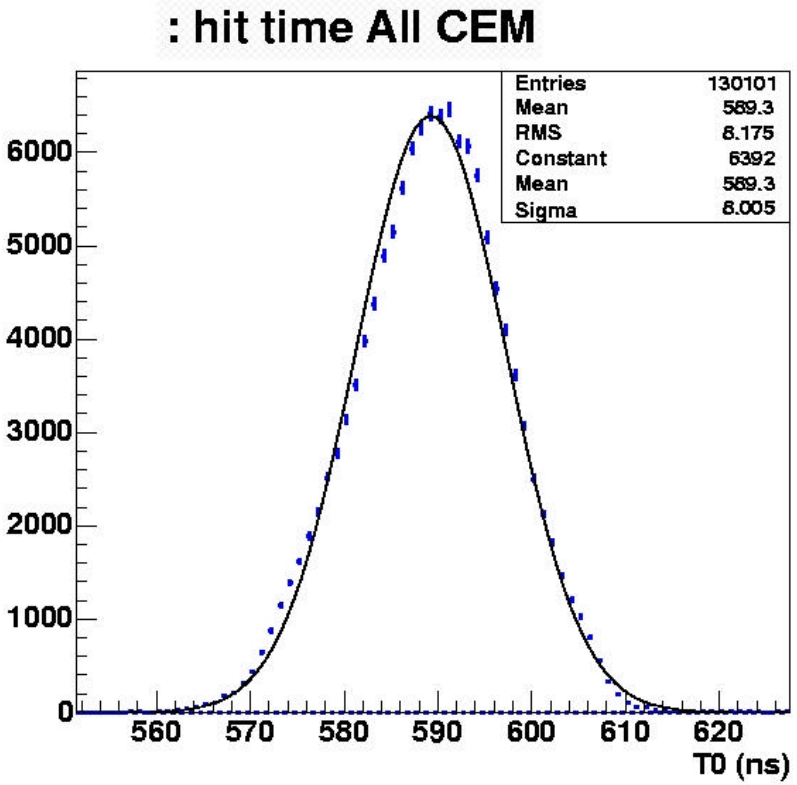
Calorimeter Timing

Automate the calibration process:
- Calibrations are in real time
- Update the database only if there are changes
- Replicate database
- Monitoring tools

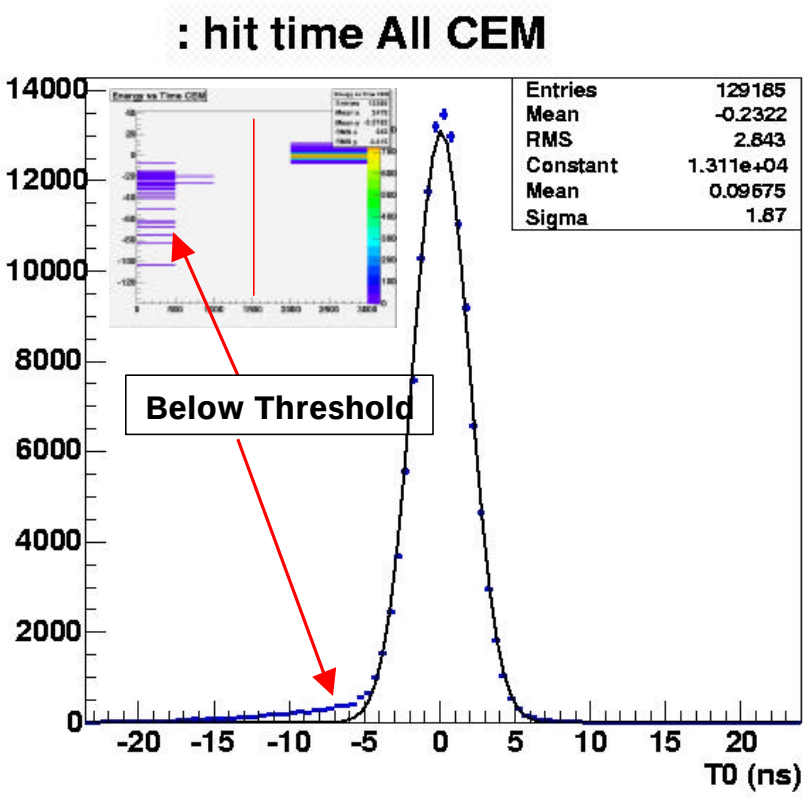
Reconstruction:
- Provide a module to create a collection with TDC hits
- Applying calibrations is done automatically
- Easy for users to use

CEM Timing

Before Energy Slewing



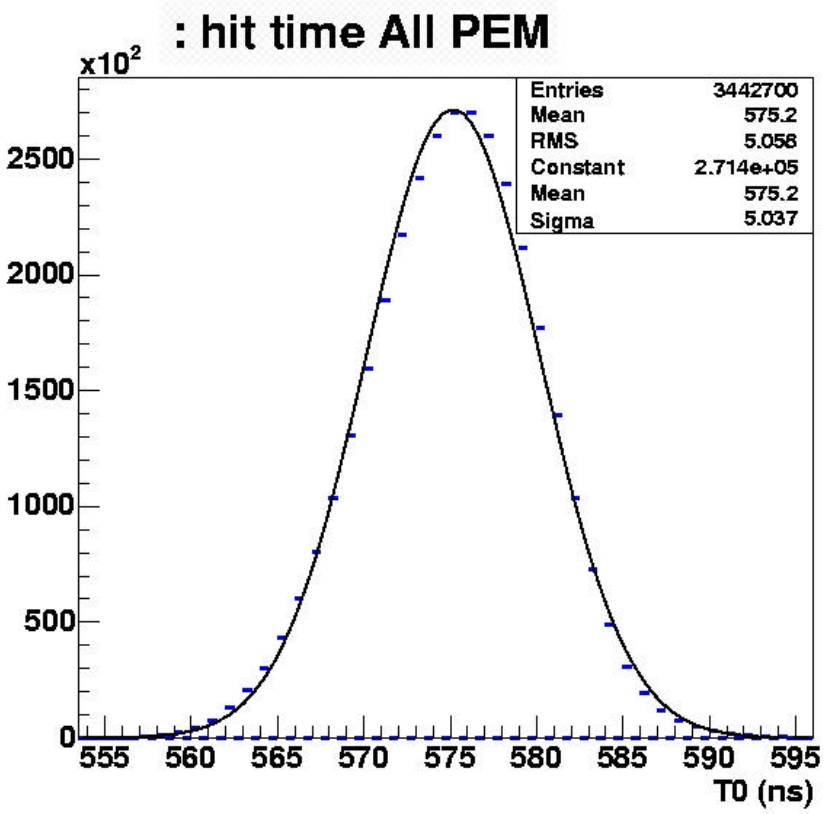
After



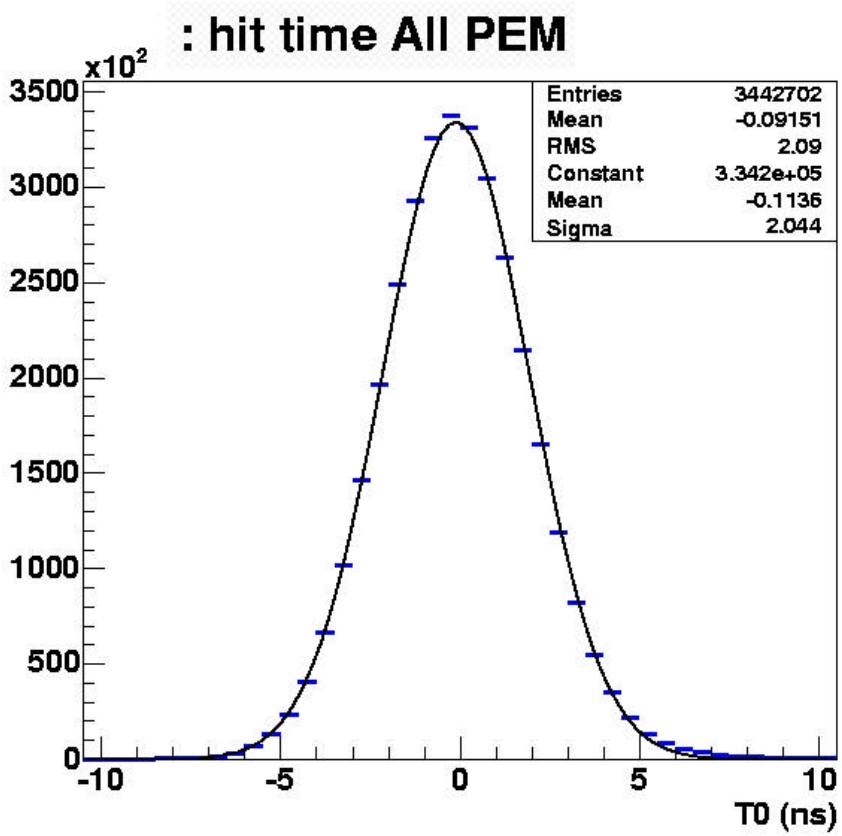
Identify effects that effect resolution and calibrate them out

PEM Timing

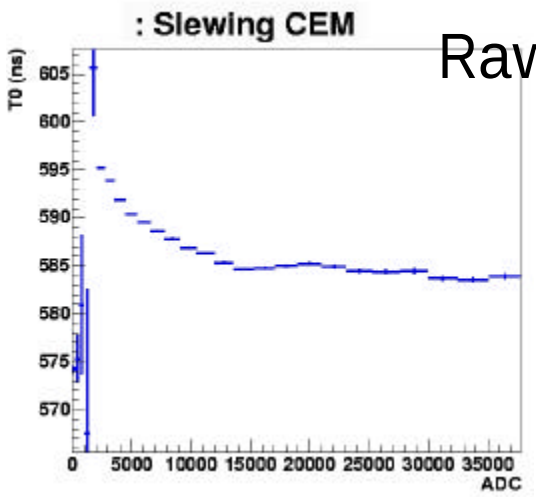
Before Energy Slewing



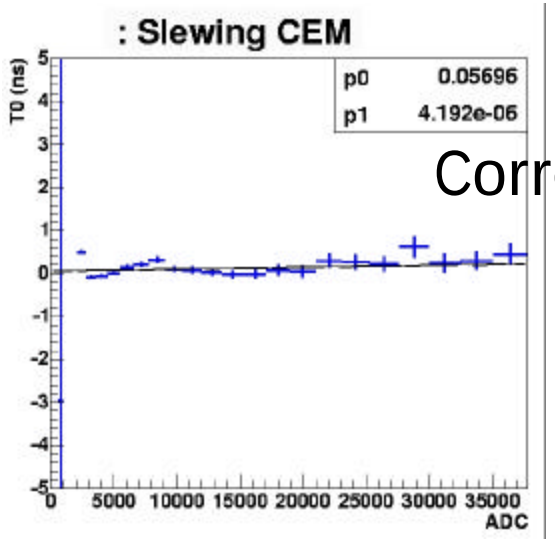
After



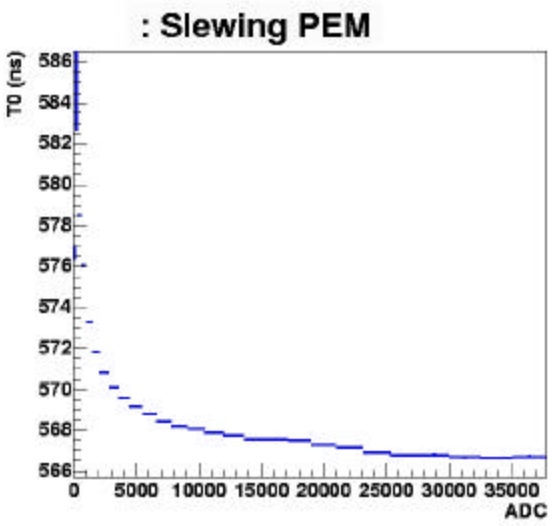
Energy Slewing

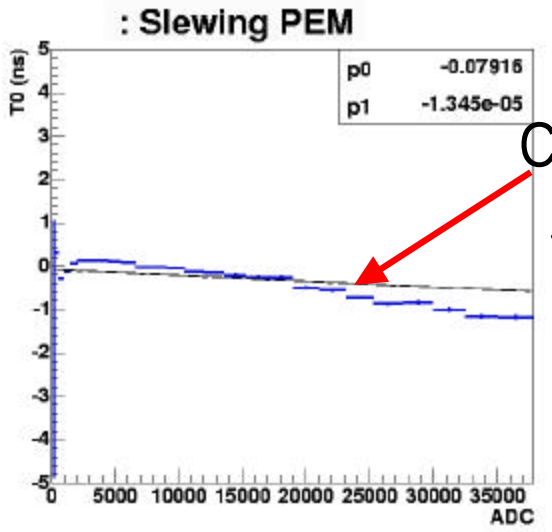


Raw



Corrected





Calibrations stop here

Status

CEM and PEM are well understood

* Resolution is below 2 ns. Further improvements: energy asymmetry, time of flight, time of the collision.

* All channels are functional and very stable.

* Low noise in the system.

Our modules handle CHA, WNA, and PHA calibrations, we are in the process of tuning them up.

Looking at the effect of the CEM Timing on the detector – coming up